Unmanned Aircraft Systems (UAS) CTAG course Learning Outcome list

This document contains information about 1 proposed course for the Air Transportation Career-Technical Assurance Guide (CTAG).
The CTAG course is:

1. Unmanned Aircraft Systems

1. **Unmanned Aerial Vehicle** Potential CTAG course alignment in the Air Transportation Pathway in the Career Field Technical Content Standards of the Ohio Department of Education.

General Course Description: The Unmanned Aircraft Systems (UAS) course will provide an opportunity to learn about careers utilizing UAS, exploration of industries where UAS can be utilized, and the opportunity to earn a FAA Part 107 Remote Pilot certificate.

Advising Notes*:*

- Must access credit within 3 years of program completion or within currency of certificate.

Proposed Semester Credit Hours: 3-4

Proposed Learning Outcomes:

Proposed Learning Outcomes **The student will be able to:**
1. Demonstrate a basic understanding of weather theory, hazardous weather situations, wind shear avoidance, and the procurement and use of graphical and textual weather products in order to identify current conditions and short-term forecasts.
2. Demonstrate basic knowledge of the Federal Aviation Regulations that relate to Remote Pilot in command privileges, limitations, and flight operations.
3. Demonstrate the ability to interrupt aeronautical charts in order to identify airspace classification, airport locations, obstructions, and other hazards that may affect a UAS flight
4. Identify the need for permission to fly in certain types of airspace and be able to utilize the appropriate systems to obtain those permissions
5. Recognize when a waiver is needed for a flight, and understand the process to seek a waiver from the FAA
6. Demonstrate an understanding of the aerodynamics that allow a UAS to fly, and how the shape and size of a UAS can change aerodynamic elements; identify sensor types and capabilities

7. Demonstrate a basic knowledge of the performance limitations of UASs, and how to properly plan and conduct a flight within those limitations (weight and balance)
8. Identify when crew resource management (CRM) and single pilot resource management (SRM) is essential to a flight, and describe the elements of effective CRM and SRM
9. Demonstrate the ability to make safe, effective decisions that pertain to a UAS flight, and how hazardous attitudes can degrade safety; ADM, PAVE, IM SAFE
10. Demonstrate an understanding of the UAS industry and how their inclusion across multiple industries can lead to career opportunities
11. Demonstrate the ability to effectively pilot a UAS, and the process involved to initiate, conduct and terminate the flight safely
12. Demonstrate a basic understanding of preflight inspection, maintenance, and troubleshooting